Amendments to the Specification:

Please replace the paragraph on page 4, lines 7-24, with the following amended paragraph:

Proposals for a new, cellular CDMA system, ~~refereed~~ referred to as a 3G (third generation) system proposes a manner by which to increase throughput rates, at least upon a forward link between a base transceiver station and a mobile station by utilizing link adaptation methods. In such a method, one of several modulation encoding schemes (MCS) is chosen for a specific communication session between the base transceiver station and the mobile station, based upon communication quality levels upon the forward link extending from the base transceiver station to the mobile station. When the communication quality level of the forward link is good, an ~~and~~ MCS that ~~which~~ exhibits high data rates can be assigned to the communication session. ~~which are~~ Communications to be effectuated upon a communication link of poor quality can be assigned with an [a] MCS that ~~which~~ exhibits a lower data rate. Higher data rates are achievable, for instance, by using a multi-code scheme in which the data symbol stream of the data of one communication session is demultiplexed into several lower symbol rate streams, and each of the lower symbol rate streams is covered by an orthogonal spreading, e.g., the aforementioned Walsh code. And, if the MCS is fixed, the aggregated data rate is proportional to the number of Walsh codes which are utilized.

Please replace the paragraph on page 5, lines 1-13, with the following amended paragraph:

The proposed 3G CDMA system also provides for packet-based communications upon shared channels. Improved communication capacity is provided in systems which utilize shared channels as communication pursuant to a polarity of communication sessions are effectuable ~~affectuable~~ upon the shared channel. Packet data generated pursuant to separate communication sessions to be communicated to separate mobile stations in the system are provided to a base transceiver station. Scheduling is performed at the base transceiver station to schedule transmission of the data packets upon the

shared channel so that collisions during communication do not occur. The manner by which the data packets are scheduled for communication upon the communication channel is determinative of the throughput rate pursuant ~~pursuance~~ to a particular communication session, as well as the quality of service (QoS) of the communication session.

Please replace the paragraph on page 5, lines 25-27, with the following amended paragraph:

In these and other aspects, therefore, an apparatus, and an associated method, is provided by which to select allocation of resources to communicate data in a communication system.

Please replace the paragraph on page 6, lines 8-20, with the following amended paragraph:

In one aspect of the present invention, a matrix of values of exemplary threshold values is formed at a storage device located at a base transceiver station, or other network infrastructure device, of a radio communication system. Each exemplary threshold value of the matrix is defined by a number N of Walsh code channels and also a MCS-type. Measured values of threshold levels are compared with the exemplary threshold values of the matrix. Responsive to the comparisons, selection is made of one of the exemplary threshold values, defined by an associated pair of values of N and a MCS-type. Data to be communicated pursuant ~~pursuance~~ to a communication session is coded and modulated according to the values associated with the selected threshold value. Thereby, assignation of the MCS and the number N of Walsh code channels to be used pursuant to a communication session are together quickly selected.

Please replace the paragraph beginning on page 6, line 21, and ending on page 7, line 2, with the following amended paragraph:

More generally, a matrix is formed of a plurality ~~polarity~~ of exemplary threshold values which are indexed together with a pair of communication indicia which define the matrix of which the exemplary threshold values form. Comparison of the exemplary threshold values with a measured value and subsequent selection of a selected one of the exemplary threshold values and the pair of communication indicia associated therewith are determinative of the manner by which data to be communicated pursuance to operation of a communication system are operated upon. Thereby, a single selection provides values of at least two communication indicia.

Please replace the paragraph on page 7, lines 3-18, with the following amended paragraph:

In another aspect of the present invention, measurements made by a mobile station operative in a cellular communication system of characteristics of a forward link channel are provided to a base transceiver station. The value of the measured threshold value is formed responsive to indications of the characteristics measured by the mobile station. In, for instance, a cellular communication system in which signals are transmitted by a base transceiver station to a mobile station on forward links defining both a pilot channel and a traffic channel, the mobile station tunes to the pilot channel and performs signal measurements of a pilot signal transmitted upon the pilot channel. The mobile station measures, for instance, a signal-to-noise ratio of the pilot signal ~~is calculated~~. The value ~~is~~ measured, or otherwise determined, at the mobile station is returned to the base transceiver station. Mapping of the indications of the measured value to a value representative of the communication characteristics of the corresponding traffic channel is then made. The mapped value is then used in the comparison operations with the exemplary threshold values of the matrix.

Please replace the paragraph beginning on page 7, line 19, and ending on page 8, line 10, with the following amended paragraph:

In another aspect of the present invention, a manner is provided by which to schedule allocation of a shared, packet channel upon which to communicate data packets pursuant to two or more separate communication sessions. A metric is provided which represents the transmission order of the data packets pursuant to the separate communication sessions. The metric is a weighted sum of an indication of the quality of the communication characteristics exhibited by the packet channel and the time period of dependency of the data packet prior to its selection for communication upon the packet channel. The metric selectively further includes one or more additional factors related to the quality of service (QoS) of the communication session~~, were of the communication system~~. Buffering is provided by a buffer positioned at the base transceiver station at which to buffer the data packets which are to be communicated to the two or more mobile stations pursuant to the separate communication sessions. A timer is provided for timing dependency of each of the data packets at the buffer. Indications of the time periods of dependency of the data packets are utilized, together with the indication characteristics of the packet channel in the scheduling of the communication of the data packets by the base transceiver station. That is to say, the transmission order of the data packets is selected responsive to the measured time periods of pendency of the data packets together with the communication characteristics of the packet channel.

Please replace the paragraph on page 8, lines 11-24, with the following amended paragraph:

In one implementation, an embodiment of the present invention is implemented at a base transceiver station to be operable in a 3G, CDMA cellular communication system, such as a proposed "1XTREME" system. A storage device is provided at which a matrix formed of a plurality ~~polarity~~ of exemplary threshold values is stored. Each element of

the matrix is defined by a pair of communication indicia, here a value N of the number of Walsh codes and a MCS-type. Measurements of a signal-to-noise ratio of signals received at the mobile station upon a pilot channel are made and communicated to the base transceiver station. Mapping of the measured value associated with the pilot channel is made to the forward link of the traffic channel. The mapped value is utilized to compare with values of the exemplary threshold values. One exemplary threshold value is selected and the pair of communication indicia associated therewith is utilized in the formation of a signal which is to be communicated by the base transceiver station to the mobile station.

Please replace the paragraph beginning on page 8, line 25, and ending on page 9, line 5, with the following amended paragraph:

In another implementation, a manner is provided by which to schedule the communication of data packets upon a packet channel utilized pursuant to two or more communication sessions with two or more separate mobile stations. A buffer is provided at which to buffer the data packets prior to their transmission to the mobile stations. And, a timer is utilized to time the pendency of the data packets at the buffer. A metric is utilized to schedule the allocation of data packets for communication pursuant ~~pursuance~~ to the separate communication sessions responsive to their respective pendency at the buffer together with measured indications of the communication characteristics of the packet channel.

Please replace the paragraph on page 9, lines 8-23, with the following amended paragraph:

In these and other aspects, therefore, an apparatus, and an associated method, is provided for a communication system in which data is communicated between a first communication station and at least a second communication station upon a traffic

channel. Selection of resource allocation in the communication system is facilitated. The resource allocation is defined in terms of a first communication indicia and a second communication indicia. A storage device has memory locations for storing a matrix defined by values of the first communication indicia and the second communication indicia. Each element of the matrix is of an ~~often~~ exemplary threshold value. A comparator is coupled to the storage device. The comparator compares a traffic channel threshold value with at least some of the exemplary threshold values. A selector is coupled to the comparator. The selector selects the resource allocation responsive to comparisons made by the comparator. The resource allocation is defined in terms of the first communication indicia and the second communication indicia associated with a selected one of the exemplary threshold values.

Please replace the paragraph beginning on page 9, line 24, and ending on page 10, line 3, with the following amended paragraph:

In these and other aspects, therefore, an apparatus, and an associated method, is also provided for a multi-user communication system in which data is communicated between first and second communication stations and between the first communication station and a third communication station pursuant to separate communication sessions upon a shared channel. A scheduler is provided for scheduling access to the shared channel upon which to communicate the data between the first and second communication stations and between the first and the third communication stations.

Please replace the paragraph beginning on page 10, line 22, and ending on page 11, line 2, with the following amended paragraph:

Referring first to Figure 1, a communication system, showing generally at ~~a~~ 10, provides for radio communications with mobile stations 12, of which two mobile stations are shown in the figure. While only two mobile stations are shown in the figure, the

communication system is a multi-user system, typically permitting communications with a large number of mobile stations analogous ~~and allocates~~ to the mobile stations 12.

Please replace the paragraph on page 11, lines 3-13, with the following amended paragraph:

In the exemplary implementation, the communication system 10 forms a cellular communication system operable pursuant, e.g., to the IS-95/IS-2000 standard, or a variant thereof such as the so-called 1XTREME system. The standard pertains to a CDMA (code to division, multiple access) communication scheme and which also provides for packet-based communications. That is to say, packet high is to data is communicated during operation of the communication system. While the following description shall describe operation of an ~~often~~ embodiment of the present invention with respect to the exemplary implementation, it should be understand that, and other implementations, embodiments of the present invention can analogously be implemented.

Please replace the paragraph on page 12, lines 13-22, with the following amended paragraph:

During operation of the communication system, the mobile stations, are at ~~and~~ selected times, tuned to the pilot channel to detect pilot signals generated thereon by the base transceiver station. Here, the mobile stations are shown to include transceiver circuitry 46 and a signal-to-noise ratio calculator 48 coupled thereto. When the received portion of the transceiver circuitry 46 is tuned to the pilot channel, indications of the signal strengths thereof are provided to the signal-to-noise ratio calculators 48. Values of the signal-to-noise ratios calculated at the calculators 48 are provided to the transmit portion of the transceiver circuitry and returned to the base transceiver station upon the reverse link portion 34.

Please replace the paragraph on page 13, lines 13-18, with the following amended paragraph:

The base transceiver station also includes a storage device 66 having storage locations at which threshold values ~~value~~ 68 arranged to form a matrix 72 are located. The matrix formed of the plurality of threshold values are each defined by a pair of communication indicia, herein indicated by the column 74 and the row 76. The exemplary threshold value 68 forming the matrix are ~~of~~ values of exemplary ~~exempting~~ threshold values of signal-to-noise ratios.

Please replace the paragraph on page 14, lines 9-14, with the following amended paragraph:

An embodiment of the present invention is further operable to schedule ~~Schedule B~~ communication of data packets upon the traffic channel 38 of the forward link portion 32 when the traffic channel forms a shared, packet channel. Packets of data to be communicated to the mobile stations pursuant to separate communication sessions are provided to the base transceiver station and buffered at buffer locations of the buffer 88.

Please replace the paragraph on page 15, lines 18-26, with the following amended paragraph:

Block 112 indicates initial setting of the subscript values which define the elements of the matrix 68. And, as indicated by the decision block 114, a determination is made as to whether a subset of thresholds in the J column and the first I rows of the matrix is less than the traffic channel signal-to-noise ratio. If not, the node branch is taken to the block 116, and the value of j is decremented. If, conversely, the determination ~~disharmonization~~ made at the decision block 114 is affirmative, the yes ~~s~~ branch is taken to the block 118. At the block 118, the required number of frames M for a packet size D for each corresponding data rate in the subset is calculated.

Please replace the paragraph that begins on page 15, line 27, and ends on page 16, line 3, with the following amended paragraph:

Then, and as indicated by the decision block 122, a determination is made as to whether ~~if~~ there is a value M from the subset such that M is greater than or equal to a value, e.g., beta. If not, the node branch is taken back to the block 116 and the value of j is again decremented. Otherwise, the s branch is taken to the block 124.

Please replace the paragraph on page 16, lines 14-20, with the following amended paragraph:

Subsequent to the operations performed at the blocks 128 and 132, and as indicated by the block 134, a value of N is chosen as the number of Walsh code channels to be assigned for transmission of the data packet at the next frame. Then, and as indicated by the block 136, the packet size is updated ~~such that D equals D minus R*TF~~. Then , and as indicated by the block 138, the number of Walsh code channels remaining is calculated such that i equals i minus N, the method ends, indicated by the end block 142.